

# Developing an Initial Predictive Model for Screening Potential Entrepreneurs in the B40 for Targeting Assistance

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## Abstract

Over the years, government through its agencies has provided various forms of assistance under numerous entrepreneurship development policies and programs to encourage and help the development of entrepreneurship. These programs / assistances however have not brought out the desired results to the programs. Many of the recipients of the assistance remain at the same stage of entrepreneurship even after receiving assistance and that is, there is lack of movement upward of the entrepreneurs to a higher level from being just micro entrepreneurs. Others have not used the assistance given for entrepreneurship but have used it for consumption purposes. In addition, the assistances / program given may not have reached the right target group of deserving entrepreneurs who have all the necessary attributes of being an entrepreneur, such as being innovative and creative, forward looking, higher need for achievement, not afraid of failure and willingness to take calculated risks. The research objectives are (1) to identify the indicators that can be used to screen the potential entrepreneurs in the B40 category; (2) to ascertain the benefits of screening potential entrepreneurs in the B40 category to its stakeholders; (3) to develop a case-based reasoning artificial intelligence system based on the predictive the model. Both primary and secondary data will be used for this research. For the data collection of the primary data, the researchers will use a quantitative research approach to screen the entrepreneurs from the B40 group. This research is an exploratory design in nature as it aimed at the entrepreneurs in the B40, and intends to screen the potential one for further targeting assistance. In here, the researchers will develop indicators that can be used as a tool to screen the potential entrepreneurs. Eventually, a case-based reasoning artificial intelligence system for predictive the model will be developed.

## Introduction

The Malaysian government is highly committed to its entrepreneurship agenda as it strongly believes that entrepreneurs are not only the lifeblood of a nation but can help a country scale great height and help Malaysia become a developed nation by 2030.

The new Government of Malaysia in the Mid Term Review (MTR) of the Eleventh Malaysia Plan (11MP) and in the Budget 2019 had given great emphasis to the enhancement of entrepreneurship, especially among the B40. This is well articulated in an excerpt from the MTR which states the 'Efforts also will be intensified to enhance the capacity and capability of B40 households for better employability and productivity as well as to promote entrepreneurship.' The third focus area of Budget 2019 is to 'Foster an Entrepreneurial State' and the Budget 2019 also gives great emphasis to the B40.

The MTR pointed out that the majority of the B40 household heads including the Orang Asli (the aborigines) in Peninsular Malaysia, Anak Negeri Sabah (children of Sabah) and Bumiputera Sarawak (a Malaysian of indigenous Malay origin). Most of the B40 households were either self-employed, low-wage workers and involved in small-scale enterprises.

Other characteristics of the B40 included having single and low sources of income and savings, high household debts and no insurance protection. The entrepreneurs from the B40 were mainly engaged in micro enterprises.

These entrepreneurs faced numerous constraints including lack of capacity and capability, low bargaining power as well as limited access to technology and financing. The MTR attributes the low levels of capability and capacity to overdependence on government assistance which in turn has resulted in low levels of initiative, perseverance and creativity. The B40 entrepreneurs are further challenged by the presence of high number of foreigners involved in unregistered business activities which have limited opportunities for local entrepreneurs.

In order to attain the aspirations of both the MTR and the Budget 2019 it is important to devise strategies at the grassroots level that will help create entrepreneurs among the B40 and help existing entrepreneurs upscale the size of their businesses and operate beyond their comfort zones and go regional and global.

The revival of the Ministry of Entrepreneur Development and the National Entrepreneurship Policy 2030 (NEP 2030) bears testimony to the ambitious entrepreneurship agenda that the nation has set for itself. Entrepreneurs can help Malaysia escape the middle-income trap through their innovative ideas and by venturing into uncharted territories. Entrepreneurs are also expected to contribute to the creation of one million jobs in Malaysia by 2030. In addition, entrepreneurs can contribute to Malaysia New Economic Model of Shared Prosperity by investing in the poorer segments of society like the B40 by creating opportunities for entrepreneurs from this group.

The NEP 2030 is premised upon seven key thrusts which include propelling new growth sectors, improving labour markets, enhancing social wellbeing and social capital. Inculcating a culture of entrepreneurship especially among the B40 is an integral element of the NEP 2030 and this will not only help enhancing the wellbeing of this group but also help create employment opportunities not only for the entrepreneur but also for others.

Given that Malaysia wants to become a nation of entrepreneurs by 2030 it is of critical importance that the NEP 2030 is carefully executed by ensuring that all of its seven thrusts are achieved. The government has invested and will continue to invest in entrepreneurship development programmes. However, for these programmes to have its intended results it is important that the programmes are directed to individuals who not only have the penchant and passion for entrepreneurship but also possess the right traits to not only become entrepreneurs but are also able to sustain and grow their enterprises to expand beyond the shores of Malaysia.

This study is very timely as it provides insights into the entrepreneurial intentions /aspirations of the B40 if any. The data base contained in the study can be used as a starting point for assessing the entrepreneurial intentions of the B40 community and the predictive model developed can be utilised to target assistance to members of the B40 community who have the potential of becoming entrepreneurs.

### **Problem Statement**

Over the years, government through its agencies has provided various forms of assistance under numerous entrepreneurship development policies and programs to encourage and help the development of entrepreneurship. These programs / assistances however have not brought out the desired results to the programs. Many of the recipients of the assistance remain at the same stage of entrepreneurship even after receiving assistance and that is, there is lack of movement upward of the entrepreneurs to a higher level from being just micro entrepreneurs. Others have not used the assistance given for entrepreneurship but have used it for consumption purposes. In addition, the assistances / program given may not have reached the right target group of deserving entrepreneurs who have all the necessary attributes of being an entrepreneur, such as being innovative and creative, forward looking, higher need for achievement, not afraid of failure and willingness to take calculated risks.

### **Literature Review**

#### **Malaysian SMEs**

Small and Medium Enterprises (SMEs) including microenterprises have always played a critical role in promoting growth, enhancing employment and incomes in Malaysia and have been instrumental transforming the Malaysian economy. In 2015 SMEs accounted for 97.3% (645,136) of business establishments in Malaysia with the majority, 77% being microenterprises, small and medium sized enterprises only accounted for 20% and 3% of all SMEs respectively. SMEs contributed 33.1% to the GDP of Malaysia, 57.5% to employment and 19% to exports. SMEs in Malaysia cut across all sectors with the majority being in the services sector at 90%, followed by manufacturing at 5.9%, Construction 3%, Agriculture 1% and Mining & Quarrying 0.1%.

The SME Master Plan (2012-2020) envisages that SMEs will play an even more important role than in the past. By 2020 the SMEs are expected to contribute 41% share of the GDP, 62% share of employment and 25% share of exports. Malaysia's development ambitions of becoming a high income nation by 2020 hinges very heavily on the SMEs as does it desire for inclusive development. SMEs are not only expected to be an enabler of growth by providing support to large firms but also a driver of economic growth. Malaysia's integration with global production network is contingent upon the upgrading of Malaysian SMEs from third and fourth tier suppliers to first tier suppliers directly serving large firms, multi nationals and anchor companies in the value chain. In addition, the government anticipates that many of the existing companies will become home grown champions and compete in the global market. SMEs are also expected to contribute to balanced and inclusive development by helping integrate the bottom 40 % households which include microenterprises into the mainstream of development.

## **Government and its Agencies**

### **a. Amanah Ikhtiar Malaysia**

The Amanah Ikhtiar Malaysia (AIM) modelled on the on the highly successful Grameen Bank of Bangladesh began as a as a pilot project in 1986 to provide credit to the hard-core poor (this terminology is used in Malaysia to distinguish between the poor who earn poverty line incomes and the hard core poor who earns incomes below the food poverty line) in the Northwest Selangor region of Peninsular Malaysia. The success of the pilot project in reaching out to the hard core poor and commendable credit recovery rate propelled the government to establish a private trust called the Amanah Ikhtiar Malaysia (AIM) launched with support from the Malaysian Economic Development Foundation (YPEIM) which gave it an initial grant of RM120, 000, the Asian and Pacific Development Centre (APDC) and the government of the state of Selangor. The objectives of AIM are to eradicate hardcore poverty in its areas of its operation through the provision of benevolent loans designed to finance income-generating activities and to attain financial viability through income generated from administrative charges.

### **b. TEKUN**

Tekun established in 1998, was formerly known as Tekun Foundation under the Ministry of Entrepreneur and Cooperative Development it started the operation on February first 1999. Tekun is an agency under Ministry of Agriculture and Agro-Based Industry now.

TEKUN has now become an institution that provides business opportunities as well as opportunities to generate income, capital financing, business guidance and support and Entrepreneurs Network. Starting from 2008, TEKUN Nasional has made some changes in its objectives where it not limited to give loan only but also provides business opportunities, the opportunities to create income, working capital financing, opportunities to establish business networking and support and advisory

The collaboration between TEKUN-SEED in 2012 made micro financing more accessible to Indians in microenterprises.

### **c. SPUMI**

SPUMI was established to improve the socio-economic status of the Indian community. The loans for SPUMI applicants are approved on need basis and this will help increase the average lending limit. There are a lot of opportunities for Indian entrepreneurs across all sectors to venture into business. The annualised allocation from the government for Tekun under the SPUMI scheme has increased 4.5 times and the quantum of average amount of loan per participant has increased 97% up to December last year (SEED, Annual Report, 2014).

### **d. MIDF**

MIDF, being an agency under the Ministry of International Trade and Industry (MITI) is designated by the Malaysian government to process and approve applications for financing under the Government financial assistance programmes, to disburse Government-allocated funds under these programmes and to manage these funds. It has conventional financing to small and medium enterprises (SMEs) and large corporations for the implementation of new projects and for expansion, modernisation, automation and relocation programmes in the manufacturing, manufacturing-related services and services sectors in Malaysia.

**e. MaGIC**

Malaysian Global Innovation and Creativity Centre (MaGIC), a one-stop centre to empower entrepreneurs which was initiated during the 4th Global Entrepreneurship Summit. MaGIC was given an allocation of RM50 million under the Budget and its functions included monitoring the performance of entrepreneurs; housing an integrated database; providing incubators; registration and patenting of intellectual property; funding facilities; business matching processes; and guidance, counselling and training for entrepreneurs. In addition to make Malaysia an Entrepreneurial Nation, the 1Malaysia Entrepreneurs (1MeT) programme was implemented to expose entrepreneurship to youth who were interested to venture into business. Through the 1MeT Programme, a database of participants was being created and the Government targeted 5,000 young entrepreneurs to be trained annually and committed 1MeT entrepreneurs were to be given further guidance at MaGIC.

**Predictive Variables Entrepreneurship**

Richard Cantillon (1775), an Irish economist, defined entrepreneurs as individual who take risk, supervises, organizes, and owns factors of production and 'buy at a certain price and sell at an uncertain price, therefore operating at a risk'. While, Hitt et al (2011) which argues that, entrepreneurship is a process where an individual engages in discovery, evaluation and exploitation of opportunities.

**Role of Entrepreneurial Development**

Entrepreneurs play a major role in contributing and developing the economy of a country. Many economists and politicians believe that entrepreneurs are the notable contributors of economic growth and job creation and this is why many countries tries so hard to promote entrepreneurial activity (Audretsch & Thurik, 2001; Reynolds et al., 2001; Wennekers, et al., 2002).

Entrepreneurs are not only linked with economic growth through the new firm creation which creates new economic opportunities Wennekers, et al (2002) but also linked to wealth distribution (Saemundsson & Kirchhoff, 2002). Not stopping there, entrepreneurs have directly contributed in poverty reduction (Christy & Dassie, 2000; UNDP, 2001).

On top of all this, entrepreneurs create social wealth out of total economic value created. This happens where markets are not being able to cater specific social needs, where the government agencies fail to provide services such as welfare and basic education in many poor countries (Sarasvathy & Venkataraman, 2011).

In recognizing the role of entrepreneurship, in the year 1993, the General Assembly of the United Nations Organisation approved a resolution recognizing entrepreneurship as economic and social force that increases the living standards throughout the world. Besides that, United Nation urge their member countries to build and implement policies to encourage entrepreneurship in the society (Slaughter, 1996).

**Growth Aspiration**

In 1965, McClelland studied the relationship among characteristics of entrepreneurs, strategy and growth of SMEs. The findings revealed that higher achievers spend time thinking on how to do things better, tend to take immediate responsibility for tasks, display initiatives and always want feedback on their level of performance (McClelland 1987). On top of that, Johnson (1990) revealed a positive relationship between need for achievement and/or growth aspiration with entrepreneurial performance. This is further supported by a meta-

analysis conducted by Collins, Hanges & Locke (2004) who found that both measures of need for achievement are valid. A more recent study in 2007 found need for achievement is significantly correlated with both the choice of an entrepreneurial career and with entrepreneurial performance (Rauch & Frese, 2007).

### **Fear of Failure**

In entrepreneurship studies, the idea regarding risks and uncertainty emerged in the 18th century through economic theory developed by Cantillon in 1931 (Kirby, 2003). The results are mixed, some have positive relationship, but others are negative. Meta-analysis investigating this relationship found positive correlation between these two elements (Rauch & Frese, 2007). Similarly, study investigating this dimension, found that risk-taking and organizational performance produced a curvilinear relationship. The clarification for this phenomenon is found in another study in Australia which found that risk-taking which involved taking calculated risk had positive impact on firm performance, but taking risk which were considered as daring actions were considered as detrimental for firm performance (Coulthard, 2007). However, a meta-analysis confirms the positive effect of risk-taking on entrepreneurship and business success (Rauch & Frese, 2007). The overall relationship between risk-taking, entrepreneurship, and business success was minimal, indicating the presence of moderators. This leads to the conclusion that the effect of risk-taking on entrepreneurship and business success is positive and significant, but weak (Macko & Tyszk, 2009). An entrepreneur with a high tolerance level for ambiguity is one who finds an unclear situation challenging and struggles to overcome such situations in order to perform better (Teoh & Foo, 1997). With regard to this phenomenon, several researchers have concluded that entrepreneurs have a significantly higher capacity to tolerate ambiguity than is the case with managers (Teoh & Foo, 1997). This is because the challenges and potential associated with business growth are, by their very nature, unpredictable (Schere, 1982). As a result of this, entrepreneurs are required to have considerable tolerance and view uncertainty as an exciting stimulus rather than a severe threat (Singh & DeNoble, 2003). In fact, if ambiguity tolerance serves as an exciting stimulus, it may foster entrepreneurial success (Begley & Boyd, 1987). This concept falls in line with the previous notion that entrepreneurs with a higher tolerance for ambiguity are those who obtain superior results if their mission is in line with company growth (Gupta & Govindarajan, 1984). Further evidence for the validity of this notion comes from a recent study carried out by (Walley, 2007). The author found that successful entrepreneurs have a greater tolerance for ambiguity than failed entrepreneurs.

### **Self-Efficacy as a Way of Innovation**

Much work has been focused on this theme since it is believed that people who have higher self-efficacy are most probably to start a venture and lead their venture to growth than people who have lower self-efficacy (Judge & Bono 2004; Kirby, 2003 and Rauch & Frese, 2007). Furthermore, it is argued that people with a high level of self-efficacy tend to set higher goals, persist even in the face of failure, and sees difficult tasks as challenges to be conquered rather than issues to be avoided (Kuratko & Hodgetts, 2001). Due to the important role of self-efficacy, many research works has been done to investigate the effect of self-efficacy on business performance (Baum & Locke, 2004). For instance, a meta-analysis carried out by Judge & Bono (2001) showed a robust, positive link between self-efficacy and work-related performance, proving that self-efficacy is an entrepreneurial feature that might determine performance. In his studies, Forbes (2005) measured the link between self-efficacy and

enterprise performance and his findings confirm that self-efficacy and enterprise performance are positively linked. Likewise, Anna et al (2000), Baum, Locke & Smith (2001), Baum & Locke (2004) identified a positive relationship between the self-efficacy of entrepreneurs and the growth of ventures.

### **Opportunity Motives**

Researchers have attempted to understand the role of alertness in venture activities. For example, Tang (2008) studies the effects of alertness on entrepreneurs' commitment to their new ventures. The researcher found that highly alert entrepreneurs showed greater commitment to their firm than less alert entrepreneurs. Following this, Hsieh, Kelley & Liu (2009) examined the role of alertness in the opportunity recognition process. Their study confirms a positive relationship between opportunity recognition and alertness, indicating that entrepreneurial alertness may provide valuable conceptual tools for understanding the process of opportunity identification and venture performance. Given the importance of alertness in opportunity identification, linking alertness to firm growth seems highly valuable. This argument also applies to Ardichvili, Cardozo & Ray (2003) who asserted that successful entrepreneurs are more likely to have an approach that assists them in recognising opportunities, which will lead to profits in the future. Thus, it seems clear that entrepreneurial alertness poses a useful dimension for understanding various aspects of entrepreneurship. However, a limited number of empirical studies exist in this area (Tang, 2008).

### **Objective (s) of the Research**

- (1) To identify the indicators that can be used to screen the potential entrepreneurs in the B40 category;
- (2) To ascertain the benefits of screening potential entrepreneurs in the B40 category to its stakeholders;
- (3) To develop an initial predictive model for targeting assistance.

### **Methodology**

Both primary and secondary data was used for this research. For the data collection of the primary data, the researchers used a quantitative research approach to screen the entrepreneurs from the B40 group. This is because for the first part of the research the information regarding the business profile, attitude and context factors, and expectations from the entrepreneurial venture by the entrepreneurs from the B40 group is needed. A person-administered questionnaire was the most desirable method as it can trigger good response rate. The data was being collected at different stages. This is because the screening of entrepreneurs in the B40 category required time. The first stage was a pilot study carried to test the questionnaire and its appropriateness for the study. Explore the entrepreneurs' participation, business continuance, In the second stage a survey of 1000 respondents were undertaken where basic information of the B40 household in different locations was elicited. Data collected included information on profiles, demographics, and family involvement in entrepreneurship. In addition, information was collected from the respondents in the B40 category on their perception on opportunities, capabilities, fear of failure, opportunity orientation, entrepreneurial intention, and entrepreneurial affiliation as well as the level of innovation level, number of employees, growth aspiration and international aspirations.

The researchers then build a predictive model that could be used to define the indicators that can be used to identify potential entrepreneurs among the B40 category. This model later

was converted to be used as inputs for Machine Learning to build the predictive model for screening potential entrepreneurs.

For the secondary data collection, the researchers focused on library and internet research from the beginning of the research until to the end of the research. The information gathered was used at many stages depending upon the needs of the research. This was to add value to the existing literature reviews and background of the research besides strengthening the theoretical or conceptual model as the information will be gathered from academic and other relevant publications including books, journals, reports, forum presentations and other reliable resources.

### **Research Design**

This research is an exploratory design in nature as it aimed at the entrepreneurs in the B40, and intends to screen the potential one for further targeting assistance. In here, the researchers will develop indicators that can be used as a tool to screen the potential entrepreneurs. Eventually, Machine Learning for the predictive model was developed.

### **Population and Sampling Procedures**

The population was respondents from the B40 category involving non-entrepreneurs and existing entrepreneurs who had received various forms of assistance under numerous entrepreneurship development policies and programs by government across the nation. The selection of samples will be based on simple random sampling method. The sampling unit were individuals in the B40 category regardless of their gender, ethnicity, geographical location etc.

### **Data Analysis**

The collected data was analysed using SPSS and other relevant statistical packages. The statistician assisted and advised the research team on the analytical parts. In addition, the data collected was used as inputs for developing the Predictive Model using Machine Learning.

### **Research Execution**

The research was executed in several stages. In the first stage based on the review of the literature and in depth discussions with fellow researchers a pilot questionnaire was developed. The pilot study was done on 30 respondents in the PPR flats of Sungei Bonus.

### **Pilot Study Site**

PPR Sungai Bonus, located at Setapak, Kuala Lumpur is one of the public housing areas developed by the government as a squatters relocation programme, as well as to meet the demands of low-cost housing in the city. PPR Sungei Bonus comprises 2 blocks of apartments with a population of more than 600 persons.



Population Composition of Sungei Bonus

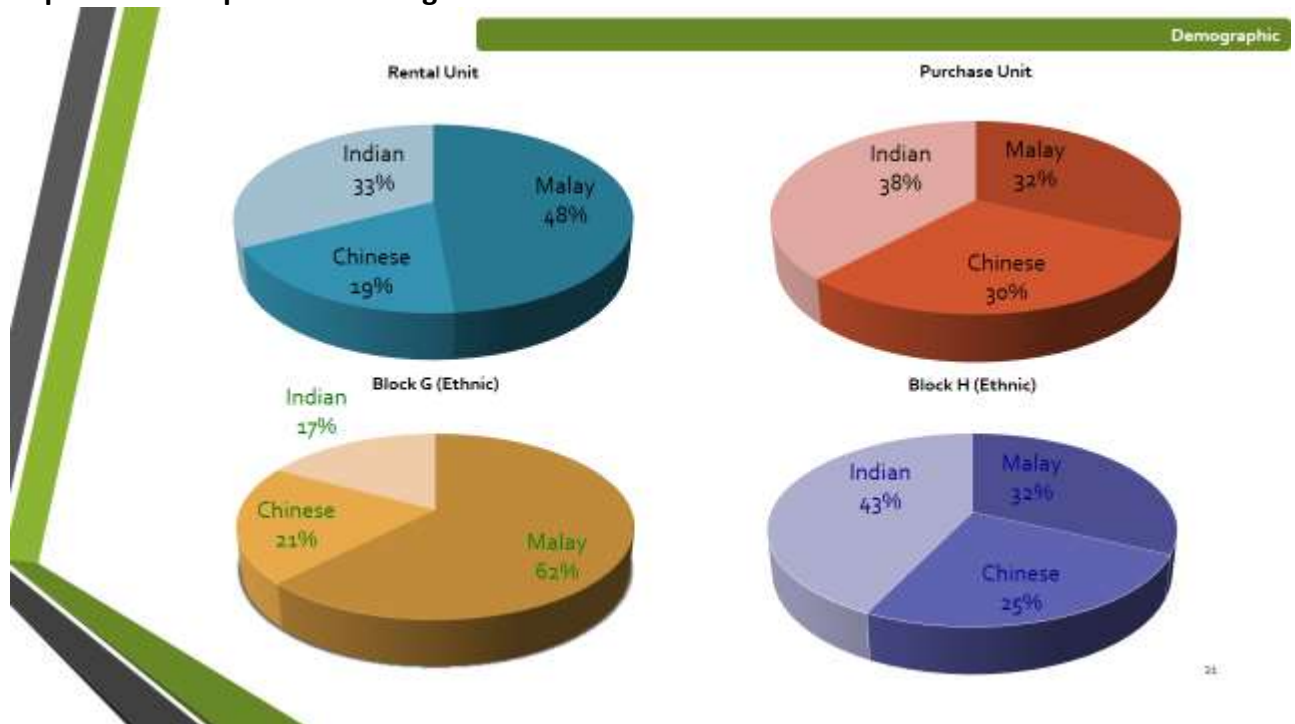


Figure 1: Population Composition

The pilot study was used to test the appropriateness of the questionnaire for eliciting the required data for the study and the usefulness of the data collected in developing the predictive model for the study.

The questionnaire was subsequently revised and once it was established that the data collected in the particular form in the pilot study could be utilised for building the predictive model the actual field work was undertaken.

Questionnaires were administered to 1000 respondents and the distribution of respondents by district and area are shown in Table 1 below.

Table 1  
*Distribution of Respondents by District and Area*

District	Number of Respondents
Kajang (3 locations)	70
Puchong (3 locations)	354
Kuala Lumpur (5 locations)	250
Sabah (5 locations)	326
Total	1000

**Summary of Profile and Responses to specific questions**

Most of the respondents believe that entrepreneurship can lead to employment and wealth and lead to positive contribution towards economic development. However, this view is subjective due to different perception of the different races and background. But there is a general believe that education is the foundation for involvement in any kinds of entrepreneurship and lack of education can lead to non-participation in entrepreneurship. With education entrepreneurship can be reinforced positively but this reinforcement is

lacking in the current education system as the emphasis is towards employment rather than entrepreneurship. There is also the view that knowledge, experience, skills, training, communication ability, and past work experience as important requirement for entrepreneurship start-ups. And these need to be encouraged participation in entrepreneurship. Mentoring is also seen to play a positive role in changing the mind-set of participants regarding entrepreneurship. Awareness is another consideration recognized by the respondents, and they believe should be encouraged in schools and colleges through a clear cut mechanism. There is evidence that female participants are more involved in informal sector, however, all respondents do face issue of funding their business. Culture has significantly affected participation and non-participation and the type of business chosen.

### **Exploratory Factor Analysis**

There are 52 questions in the questionnaire that are focused on the main theme of the research. Exploratory factor analysis, a statistical technique, is used to reduce data to a smaller set of summary variables and to explore the underlying theoretical structure of the phenomena.

### **Exploratory Factor Analysis Result**

The analysis of all questions related to opinion of respondents on specific issues in the questionnaire has resulted in the generation of 12 factors; however, Factor 11 is irrelevant for the analysis due to insufficient reliability. The likely factors are also written alongside.

Factor 1 Views, Inclination and perspective

Factor 2: Communication ability

Factor 3: Training and Development

Factor 4: Customs and Habits

Factor 5: Self Initiative

Factor 6: Coaching and Guidance

Factor 7: View on Enterprise

Factor 8 Past Experience

Factor 9: Relevant Organization Support

Factor 10: Attitude and Outlook

Factor 11: Not significant

Factor 12: Ability, Skills and Knowledge

### **Summary of Profile and Responses to specific questions**

Based on the EFA on the questions, 12 groups (factors) are identified as relevant, of these factor 11 is dropped as it has issues with Cronbach alpha, which is rather low for consideration on reliability and the other 11 factors taken into consideration for model building.

The research questions have 23 variables of the respondents' profile and these variables are cross tested with overall mean opinion expressed by respondents on involvement in entrepreneurship (induced from the mean of all factors from EFA) using Chi-square test. The result will be used to identify aspects of profile deemed necessary for successful involvement in entrepreneurship. The results of the tests are given below.

Table 2

*Profile overall significance*

	Influence of each profile towards successful participation in entrepreneurship	Significance
1.	Age Group	sig
2.	Race	sig
3.	Gender	Not sig
4.	Marital Status	Not sig
5.	Education	Not sig.
6.	Working status currently	Sig.
7.	Number of years working	Not sig.
8.	Family income.	Sig.
9.	Source of income.	Not sig.
10.	Your current background.	Sig.
11.	Family background.	Sig.
12.	Why you and your family not involved in business	Sig.
13.	Likely sector of business involvement	Not sig.
14.	Reason on why the need to involve in business	Not sig.
15.	Prior work experience	Not sig.
16.	No of years of Working experience before involvement in business	Sig.
17.	Source of finance of current business	Not sig.
18.	Knowledge of micro finance	Sig.
19.	Did you ask for micro financial support	Sig.
20.	Type of micro finance support	Sig
21.	Loan period	Sig.
22.	Experience in applying for loan	Not sig.
23.	Reason for rejection	Not sig.
24.	Other sources of loan	Not sig.

Aspects of profile that are identified as necessary are Age group, Race, working status currently, Family income, current background, Family background, Why you and your family not involved in business, No of years of Working experience before involvement in business, Knowledge of micro finance, Did you ask for micro financial support, Type of micro finance support, Loan period. For all purpose of further analysis, race is removed to give equal chance to all participants

Aspects of profile that are not relevant and not considered as input include; Gender, marital status, education, number of years working, source of income, sector to be involved, why need to involve, prior working experience, source of finance, experience in applying loan and related variables.

**Preliminary Screening Model Using Excel****a. Prior Requirement**

- Family Income below RM1500 per month (B40 Group)

Once the above requirement is fulfilled, the prospective respondents are to answer the following questions that are based on the Factors identified in exploratory factor analysis, namely

Table 3

*Profile of significance influence*

Influence of each profile towards successful participation in entrepreneurship Significance		Significance
1	Age Group	Sig
2	Race	Sig
3	Working status currently	Sig
4		Sig
5	. Family income. Your current background	Sig
6	Family background.	Sig
7	Why you and your family not involved in business	Sig
8		Sig
9	No of years of Working experience before involvement in business	Sig
10	Knowledge of micro finance Did you ask for micro financial support?	Sig
11	Type of Loan	Sig
12	Loan period	Sig

**b. Variables Relevant are identified as X1, X2 etc. The respondents are to answer 'Yes' =1, If 'No'= 0**

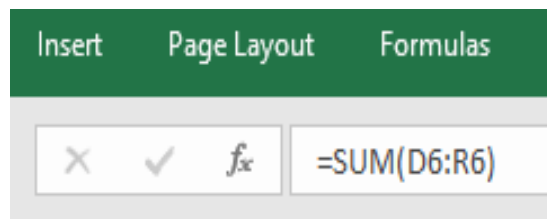
- ✓ X1= Is your age group within 21 to 30 years
- ✓ X2= Are you Currently **not** working
- ✓ X3= Are you Involved in own business
- ✓ X4= Are Some members in your family involved in business
- ✓ X5= Do you have prior working experience before involvement in business
- ✓ X6= Do you have knowledge of microfinance
- ✓ X7 = Do you have a minimum secondary school education
- ✓ X8 = Do you have any prior skills and knowledge on entrepreneurship
- ✓ X9= Have you attended any course or training on entrepreneurship
- ✓ X10= Are you able to communicate and network confidently
- ✓ X11= Have you attended any business mentoring program
- ✓ X12= Increasing Family income is **not** a major issue in Business involvement
- ✓ X13= My culture will **not** influence my involvement in entrepreneurship

- ✓ X14= Have you worked under an entrepreneur before
  - ✓ X15 = Are you a self-starter and persevere during hardship
- c. Fill in the responses in the table (prepare the table in Excel)

Table 4  
Scoring Approach

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
1																					
2	Score: If "Yes", X=1; If "No", X=0																				
3	Variables																				
4																				<b>Total</b>	<b>Chance of Success</b>
5	No.	Name	Family Name	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15			
6	1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	Excellence
7	2			1	1	1	0	0	1	1	0	0	0	0	0	1	1	1	1	8	Average
8	3			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Poor
9	4			1	1	1	0	0	0	1	1	1	1	1	1	0	0	1	1	10	Good
10	5			1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	9	Good
11	6			0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	5	Poor	
12	7			0	1	1	1	1	1	1	1	1	1	0	1	1	1	0	12	Good	
13	8			0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	7	Average	
14	9			0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	12	Good	
15	10			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	Excellence	

i. For Total Score, type this in the formula bar, your cursor is placed at the first relevant cell, here in the table the relevant cell is R6:



Drag down, the 'Total' cell from R6 (in the above table) where the formula was entered to cover all cells down

ii. For Grading Score



Drag down, the 'Excellence' cell (here, in the table above it is T6), where the formula was entered to cover all cells down.

### iii. Scoring

Table 5

#### Scoring Approach

Range				Chance of Success		
>=	13			Excellence		
>=	9	>	12	Good		
	6	>	9	Average		
	6			Poor		

Other Variables of Interest? Include if there are.

Adjust the formula bar accordingly.

#### Selection Criteria

Respondents who score 13 or more points have excellent chance to be successful entrepreneurs if given the opportunity. Respondents who score between 9 to 12 points have good chance to be successful entrepreneurs if given the opportunity

#### Conclusion

The research aims to ascertain the benefits of screening potential entrepreneurs in the B40 category to its stakeholders and building an initial screening model using primary data from 1000 respondents from across the country for targeted assistance. This exploratory research and design intend to screen the potential one for further targeting assistance. In here, the researchers had developed indicators that can be used as a tool to screen the potential entrepreneurs. Eventually, a case-based reasoning artificial intelligence system for predictive the model will be developed as a continuation of this study.

#### References

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